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**Green School Project.**

**Introduction:**

We decided to do a research on water pollution since this is a liquid vital to the survival of our planet and all that dwell therein, but the growing increase in population has affected the purity of this liquid as we shall see later.

Water is one of the most important components in all living things. It is the most abundant element in our body and is involved in several vital functions for our body, without it our body would not work properly.

**Pollution:**

The water falling from rain clouds by cooling air drag impurities. Riding on the surface or deep layer level, you add another chemical, physical or biological  
There is thus a natural pollution, but while there may be another remarkable human source, for agricultural, livestock or industrial purposes, which exceed the capacity of self-purification of nature.  
Water pollution is the incorporation of foreign matter into the water as microorganisms, chemicals, industrial waste and other types, or sewage. These materials degrade water quality and make it useless for the intended uses.

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**Main Pollution:**

The most common contaminants are water, organic matter and bacteria, hydrocarbons, industrial waste, pesticides and other products used in agriculture, household chemicals and radioactive waste. The most serious is that some of the oil are thrown overboard from ships or coastal industries and are absorbed by marine fauna and flora relayed to consumers of fish, crustaceans, mollusks, algae. .

**Liquid Pollutants.**  
A liquid contaminants from domestic waste discharges, agricultural and industrial waterways, land supply of animals, sanitary landfill, mine drainage and leaking septic tanks. These fluids contain dissolved minerals, human and animal wastes, chemicals and synthetic colloids and suspended.  
  
**Solid Pollutants.**  
Among the contaminants solids are sand, clay, soil, ash, agricultural plant matter, fats, tar, paper, rubber, plastics, wood and metals.  
  
**Physical Pollutants.**  
  Affect the appearance of the water and they float or settle to interfere with the flora and fauna. They are insoluble liquid or solid natural and various synthetic products that are thrown  
water as a result of human activities, as well as foam, oily waste and heat (thermal pollution).

**Chemical Pollutants.**  
Include organic and inorganic compounds dissolved or dispersed in water. Inorganic pollutants are various products dissolved or dispersed in water discharges from domestic, industrial or agricultural and soil erosion. The main ones are chlorides, sulfates, nitrates and carbonates.   
Also acidic wastes, alkaline and toxic gases dissolved in the water as sulfur oxides, nitrogen, ammonia, chlorine and hydrogen sulfide (hydrogen sulfide). Much of these pollutants are released directly into the atmosphere and washed down by rain. This acid rain, harmful effects can be observed in both vegetation and buildings and monuments in the industrialized cities.   
  
**Organic pollutants**   
They are also dissolved or dispersed compounds in waste water from domestic, agricultural, industrial and soil erosion. They are human and animal waste, trails or slaughterhouses, food processing and animal feed, various industrial chemicals and natural oils, grease, tar and dyes, and various synthetic chemicals such as paints, herbicides, insecticides, etc. Consume organic pollutants dissolved oxygen in the water and affect aquatic life (eutrophication).   
Abnormal levels of nitrogen compounds in water, such as ammonia or chlorides are used as an indicator of the presence of these contaminants in water impurities.   
  
**Biological Pollutants**  
Including fungi, bacteria and viruses that cause disease, algae and other aquatic plants. Some bacteria are harmless and others are involved in the degradation of organic matter in water.   
Some bacteria break down inorganic substances. The elimination of viruses that are transported in water is a very difficult and expensive.

**Oil Pollution**.  
Accidents involving ship-tanks, leaks in the sea (oil escaping from a hole drilled into the seabed), and petroleum waste dumped on land which ends in streams that flow into the sea.  
**Effects of Oil Pollution**.  
Depends on several factors, types of oil (crude or refined), quantity released, release site distance from the beach, season, water temperature, climate and ocean currents. The oil reaches the sea evaporates or is slowly broken down by bacteria. Volatile organic hydrocarbons in oil immediately kill several animals, especially in their larval forms.  
Other chemicals remain on the surface and floating bubbles that cover the feathers of birds that dive, which destroys the natural insulation and causes it to sink and die.



**EFFECTS OF WATER POLLUTION**  
  
Physical effects, such as odor, color change, turbidity, fermentation, temperature change ...  
Chemical effects: as the decreased concentration of oxygen necessary for aquatic life.  
Biological effects: the death of plants and animals as well as the production of human diseases.  
 **Measures to prevent water pollution**  
• Caring for the vegetation of the highlands and headwaters, preventing the felling of forests.  
• Protect water sources, not throwing garbage or fecal waste on them.  
• Build latrines and septic tanks.  
• Construct water treatment plant residuals.  
• Carry out educational campaigns to achieve positive attitudes towards water conservation.